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THE INTERVIEW:

II. Aids To The Interview - The Confidential Questionnaire

by

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Medical Research Laboratory Report No. 211

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Released by

Gerald J. Duffner
Commander, MC, U.S.Navy
Officer-in-Charge
U.S.Naval Medical Research Laboratory
15 October 1952

THIS REPORT CONCERNS

The use of an instrument of the personal history variety in the assessment of submarine candidates.

IT IS FOR THE USE OF

Those personnel concerned with the assessment and selection of enlisted men for the submarine service and all officer and enlisted personnel who require background information on enlisted submarine candidates.

THE APPLICATION FOR SUBMARINE MEDICINE

Will be in the revision of the present questionnaire, in the guiding of its use by the medical officer interviewers of submarine candidates, and thereby improving the pattern of conduct of the interview and its predictive power.

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ABSTRACT

This report is the second of four reports in connection with research on the problem: "The reliability and validity of the assessment interview as a screening and selection technique in the submarine service."

Responses to a personal history type questionnaire by 1198 submarine candidates are analyzed for a description of submarine candidates and for reliability and validity of the items. The description of submarine candidates is made in terms of contrast with the descriptions of two other naval groups--recruits, and receiving station personnel. Reliability is indicated for factual type items and validity, using the immediate criterion of graduation from Submarine School, is indicated for items pertaining to educational attainment.

Extensive data on submarine candidates, recruits and receiving station personnel, as well as a recommended revised questionnaire, are appended.

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THE INTERVIEW

II AIDS TO THE INTERVIEW - THE CONFIDENTIAL QUESTIONNAIRE

INTRODUCTION

The Confidential Questionnaire is an instrument of the personal history variety which is used in connection with the assessment of enlisted candidates for the submarine service. It was designed and developed shortly after World War II by Captain Thomas L. Willmon, MC, USN, then officer in charge of the U.S. Naval Medical Research Laboratory, New London, Connecticut. Until 1950 its use was limited to processing of men from reserve units. Commencing in September 1950 it was prescribed for use with incoming groups of candidates for the U.S. Naval Submarine School at New London.

More specifically, the function of this instrument as an assessment tool is three-fold:

- To gather information about the candidate for the submarine service, systematically and economically;
- To serve as an aid in the interview process;
- To elicit responses to items of possible value in the prediction of success as a submariner.

In general, the questionnaire items may be categorized as follows:-

Actuarial - e.g., age, marital status, number of children, etc.

Personal History - e.g., length of time in home town, age at time of leaving school, work history, subjects failed, etc.

Medical History - e.g., number of illnesses, worst illness, kind's of illnesses, etc.

Personality Manifestations - e.g., whom most admired, what cried over, personal habits want to improve, etc.

The entire questionnaire, as it was structured and employed during the period of this investigation, is exhibited as Appendix A, The Confidential

Questionnaire.

However, since its inception, no systematic study has been made of its use, its reliability or validity. Playbacks of interview soundscripts indicated the interviewer employed it primarily as an aid in building rapport. Content analysis based on the interview soundscripts revealed it was employed with wide variations from interviewer to interviewer and in general from interview to interview.

PURPOSE

This phase of the general investigation, that dealing with the Confidential Questionnaire, was designed to serve the following objectives:

- To furnish summary descriptive information about candidates for submarine school;

- To determine the reliability of the questionnaire;

- To determine the validity of the questionnaire, i.e., utility of the questionnaire in discriminating between those submarine candidates who are successful and those who are not successful;

- To suggest modifications in or additions to the present structure of the questionnaire in line with its own general functions.

PROCEDURE

For the purposes of the present study, the questionnaires of 1190 candidates processed at New London during the period September 1950 to September 1951 were employed. In order to interpret the data gathered on the submarine candidates in answer to the first objective, the questionnaires were also submitted to two different Navy groups: (a) four hundred eighty non-selected enlisted men passing through the U.S. Naval Receiving Station, Brooklyn, N. Y., in December 1951; and (b) five hundred recruits at the U.S. Naval Training Center, Bainbridge, Maryland, in September-October 1951.¹

¹The investigators wish to thank responsible personnel at USN Training Center, Bainbridge, Maryland, and USN Receiving Station, Brooklyn, New York, for their kind cooperation in making these cases available for the study.

The items on the questionnaire are of two varieties, namely, multiple choice and free response. The latter type, however, constitute by far the major type of question. Analysis of the responses of the three groups therefore required classification of individual responses into the fixed categories on the questions of the former type, and into seemingly logical groupings based on preliminary processing of the replies on questions of the latter type. For example, marital status was indicated by checks in fixed categories, single, engaged, married, separated, divorced, widowed; replies to the item "What kind of people upset you most?" were sorted into the following eleven categories:

- undesirable physical characteristics
- undesirable personality characteristics,
e.g., "grippers," "naggers," "complainers,"
"noisy," "nervous"
- undesirable habits
- undesirable affiliations
- talkative
- loud
- none
- miscellaneous
- racial and religious
- political
- no response

A few questions were analyzed in addition for inferred patterns. For example, in answer to the question, "What grades or subjects did you do best in?", an answer such as "physics, mathematics and English" was inferred to represent a pattern of preference for scientific subjects. The scheme for categorizing the responses to the entire questionnaire is set forth in Appendix B, Table 1. The principal questions and inferred patterns constitute the several sections, and the section subdivisions constitute the summary groupings of replies.

To determine the reliability of the Confidential Questionnaire, a group of 94 submarine candidates who had been given the questionnaire

as part of the initial processing during the period March-April 1952 were retested on 31 May 1952, upon graduation from submarine school.

Since the aspect of reliability of most practical consequence here is consistency of the responses elicited by the instrument, the reliability estimate was made in terms of the comparison between test-retest responses as written. By the very nature of the questionnaire, the men could not be expected to answer all questions with word-for-word accuracy. Any answer which involved essentially the same thought on both completions was regarded as a consistent response. This procedure inevitably involved some subjectivity on the part of the analyst. One other convention was adopted arbitrarily wherever a man did not respond to an item on either the first or second administration. Incompleteness was not considered an acceptable aspect of inconsistency in this case. This condition might easily be overcome with more insistent instructions. Finally, analysis of the inconsistencies was made in terms of the total number of inconsistencies per individual as well as the total number of inconsistencies per item.

As the most immediate estimate of the validity of the questionnaire, records of the 1198 submarine candidates were examined to identify those individuals in the group who had completed submarine school successfully, and those who had been disqualified--physically, temperamentally, or academically. The overall data were broken down and reanalyzed in terms of these four groupings.

RESULTS

A. The Submarine Candidate Group Compared with the Receiving Station Group and the Recruit Group.

The complete distributions of responses to the items on the questionnaire by each of the three groups involved, namely submarine school candidates, receiving station personnel, and recruits, are presented in Table 1, Appendix B. On the basis of the data in this table,

the following summary descriptions of a typical submarine school candidate, a receiving station man and a recruit may be derived:

Description of a Submarine School Candidate:

Typically,

1. He is in the second pay grade.
2. He is 20 years old or younger.
3. He remained in his home town nine or more years.
4. He is single.
5. He completed twelve grades of schooling.
6. He did not have a sustained absence from school.
7. He left school at age 17 or younger.
8. He left school because he graduated.
9. He liked two subjects best but there was no evident pattern to the "likes."
10. He failed no subjects.
11. He held an unskilled job from one to four years if he worked before entering the service.
12. He has a savings account.
13. He has had three or fewer sicknesses of miscellaneous varieties.
14. He considers his worst disease to be one of the childhood communicable type.
15. He regards the disease as worst because of its severity (this includes indication of pain).
16. He considers his greatest accomplishment to be in connection with his education and self-improvement.
17. He considers his greatest failure to be in connection with incomplete education.
18. He is upset by people with undesirable personality characteristics.
19. He wants to improve any one of the following: (in order of frequency.)
 - (1) relations with others
 - (2) language and speech
 - (3) acquisition of knowledge or skill
 - (4) own personality
 - (5) neatness and physical appearance

20. He cries at the death of a loved one.
21. He most admires: (in order of frequency)
 - (1) Father
 - (2) Mother
 - (3) family or parents
 - (4) anyone with good qualities
 - (5) wife
22. He likes sports of the team play variety and he rates his proficiency as average.
23. He wants to be in the Navy five years from now.
24. His three most cherished possessions are:
 - (1) some one dear to him
 - (2) some concept, such as his background
 - (3) some material possession

Description of a Receiving Station Man:

Typically,

1. He is in the third or fourth pay grade.
2. He is 21-25 years of age.
3. He remained in his home town nine or more years.
4. He is almost equally likely to be married or single.
5. He completed twelve grades of schooling.
6. He did not have a sustained absence from school.
7. He left school at age 17 or younger.
8. He left school because he graduated or he joined the service.
9. He liked two subjects best but there was no evident pattern to the "likes."
10. He is likely to have failed no subjects or one subject.
11. He held an unskilled job from two to four years if he worked before entering the service.
12. He has a savings account.
13. He has had three or fewer illnesses of the childhood communicable type.
14. He considers his worst disease to be one of the childhood communicable type.

15. He regards the disease as his worst because of duration and confinement.
16. He considers his greatest accomplishment to be in connection with education and self-improvement.
17. He considers his greatest failure to be in connection with incomplete education.
18. He is upset by people with undesirable personality characteristics.
19. He wants to improve any one of the following: (in order of frequency)
 - (1) his personal adjustment
 - (2) his relation with others
 - (3) smoking habits
 - (4) acquisition of knowledge
20. He does not cry.
21. He most admires: (in order of frequency)
 - (1) wife
 - (2) mother
 - (3) a hero figure
22. He likes sports of the team-play variety and he rates his proficiency as average.
23. He wants to be working in a civilian occupation five years from now.
24. His three most cherished possessions are:
 - (1) some one dear to him
 - (2) some concept, such as his background
 - (3) some material possession

Description of a Recruit:

Typically,

1. He is in the first pay grade.
2. He is 20 years old or younger.
3. He remained in his home town nine or more years.
4. He is single.
5. He completed twelve years of schooling.
6. He did not have a sustained absence from school.

7. He left school at age 17 or younger.
8. He left school because he graduated.
9. He liked two or three subjects best, but there was no evident pattern to his "likes."
10. He failed no subjects.
11. He held a semi-skilled or unskilled civilian job from one to two years, if he worked before entering the service.
12. He has a savings account.
13. He has had two or three illnesses of the childhood communicable type.
14. He considers his worst disease to be one of the childhood communicable type.
15. He regards the disease as his worst because of the severity (including pain), or because of the personal inconvenience involved.
16. He considers his greatest accomplishment to be in connection with education and self-improvement.
17. He considers his greatest failure to be in connection with incomplete education.
18. He is upset by people with undesirable personal characteristics.
19. He wants to improve:
 - (1) his speech and language
 - (2) his personal adjustment
 - (3) his smoking and nailbiting
 - (4) his neatness and relations with others
20. He cries at the death of a loved one.
21. He most admires a hero figure.
22. He likes sports of the team play variety which also involve physical contact, and he rates his sport proficiency as average.
23. He wants to be working on a semi-skilled job five years from now.
24. His three most cherished possessions are:
 - (1) some concept, such as background
 - (2) some one dear to him
 - (3) some material possession

A Comparison of the Three Groups

To determine whether the submarine candidates differed from the other two groups, the receiving station men and the recruits, the frequency distribution of each group on responses to the questionnaire were compared.

Examination of the modal responses of each group as listed in Appendix B, Table 2, shows that the submarine candidates differ from both groups on the following four items:

1. Pay grade. The candidates were mostly in the second pay grade, whereas the men at the receiving station were of higher pay grade, and the recruits, as might be expected, were in the lowest grade.

2. Personal habits wanted to improve. Submarine candidates most often listed relations with others, while the receiving station men listed personal adjustment and recruits listed speech and language.

3. Persons most admired. Candidates most admired a father or father figure. Recruits chose a hero figure, and surface men selected their wives or sweethearts. (However, it is remembered that the latter group had the largest proportion of married and engaged men.)

4. 5 years from now. The candidates want to be in the Navy five years from now, while both of the other groups wanted to be in civilian jobs.

On some items, the modal response of the submarine candidates was found to differ from one of the other two groups, but not both. The candidates differed from the recruits on the following three items:

1. Civilian job. The candidates had most often held an unskilled job, whereas the recruits had most frequently held semi-skilled jobs. This distinction is questionable, however, in view of the ambiguous nature of the responses to this item. (This factor is discussed more fully later in the section "Summary Evaluation.")

2. Three most cherished possessions. Although the same three responses are found in all groups, the order in which they were listed is different. Candidates most often list family, while the recruits list a concept.

There were two items on which the submarine candidates differed from the receiving station group, and not from the recruits, namely:

1. Marital status. The candidates were predominantly single, whereas less than half of the men from the receiving station were in this category.

2. Reason for leaving school. The largest single group of candidates left because of graduation, while the receiving station men left to join the service.

The above comparisons were made solely on the basis of the single response which was most often mentioned by the three groups on each item. When the complete distributions were analyzed (Appendix B, Table 1), some further differences were found between the submarine candidates and the other two groups. Those differences which appeared large enough to be of interest are as follows:

In general:

1. Candidates are older than recruits, but younger than the men from the fleet (the receiving station group).
2. Candidates have had more education than the receiving station group and recruits.
3. Candidates left school because of graduation more often than the men from the fleet, many of whom left to join the service or to begin working. However, more candidates left to join the service than did recruits.
4. There were fewer candidates with a pattern of preference for mechanical school subjects than among recruits, and, also, more candidates who evidenced no pattern.
5. Fewer candidates had been employed in semi-skilled jobs than in the two other groups.
6. There were fewer childhood communicable diseases reported among candidates than among other groups. There was a greater number among the candidates, more than half, reporting illnesses which were classified as miscellaneous.
7. Candidates listed an accident as their worst illness more often than the two other groups.

8. Severity of an illness, including pain, was given more often as the reason why an illness was the worst by the candidates than by the two other groups.
9. Achievement in science was mentioned as greatest accomplishment by ten per cent of the candidates, but not at all by the men from the fleet and by only one recruit.
10. Candidates were "upset" by loud people more often than were the recruits.
11. Candidates desired to improve their relations with others more often than did the two other groups.
12. Death of a loved one was offered as the provocation for crying more often by the candidates than by the receiving station men.
13. Candidates reported more frequently a father or father figure as the person whom they most admired than did the receiving station men or the recruits. The candidates also did not admire a hero figure as often as did the recruits.
14. The candidates were the only group in which more individuals preferred physical contact sports than the non-physical contact sports.
15. A higher percentage of candidates indicated that they hoped to be in the Navy five years from now than in either of the other groups. Only a small number of recruits expressed this wish.
16. Candidates chose individual persons (father, mother, etc.,) as cherished possessions less often than did the other group.
17. Candidates almost always listed some greatest failure whereas the recruits failed to respond to this item.

As a further aid in the description of the submarine candidates, and, also, to bring out any additional differences that might exist between the three groups involved, cross-comparisons were made on many of the items in the questionnaire. Although the diagnostic value of such information is not as readily apparent as that obtained by examining the gross frequency distributions, these results may help to define more precisely the structure of the group, and for that reason,

are included in the present section. While the cross-comparisons were made on many items, only those comparisons which yielded informative or interesting results are mentioned.¹ The descriptive headings refer to the items on which the intercomparisons were made.

Pay Grade

1. A greater percentage of the upper pay grades want to be in the Navy five years from now than do the low-rated men. This is true of both submarine candidates and receiving station personnel. Any comparison involving pay grade differences, of course, cannot be applied to the recruits.

2. The relation of pay grade to amount of formal education shows differences between the groups, especially at the two extremes of the pay grade distribution. For the candidate group, those in the lowest pay grade have the smallest proportion who did not complete ten years of schooling; those in the highest pay grade (Chief Petty Officers) have the largest proportion who completed less than ten years. On the other hand, the receiving station men show an almost complete reversal of this trend; those in the lowest pay grade were the second largest group in this category and the Chief Petty Officers have the smallest proportion with less than ten years of schooling.

Marital Status

1. In all three groups the married men are older than the single men.

2. The single men in the submarine candidate and receiving station groups left school most often because of graduation, whereas the married men were about equally divided between leaving school because of graduation, to enter the service, and to work.

3. The married men in all three groups had held pre-service jobs for longer periods than the single men. This may, however, be a function of the more advanced age of the married group, i.e., opportunity to hold a job longer, or greater sense of responsibility to the marriage relationship.

4. The married men in the three groups usually listed an aspect of sex role as their greatest accomplishment, and they most admired their wives. Single men considered education as their greatest accomplishment, and they most admired their fathers.

¹In order to conserve space, the complete frequency distributions of the inter-comparisons are not included in the body of this report. These data, however, have been turned over to the staff of the Medical Research Laboratory.

Reason for leaving school

1. Those submarine candidates who left school to go to work listed a civilian job as their greatest accomplishment more often and had less education than the rest of the group. Fifty-four per cent of them considered this lack of education as their greatest failure.

2. Those candidates, who left school because financial help was needed in the family, had more education than the rest of that group. However, in the receiving station group, those who left for this reason had somewhat less education than the others.

History of many illnesses

1. Those with many illnesses in the candidate and recruit group preferred non-physical sports, and they rated their proficiency as good in these sports.

2. The candidates with many illnesses had experienced more operations and accidents than the others in this group. Among recruits, however, with many illnesses, skin diseases comprised the predominant category.

Personal habits

1. Those candidates who wanted to improve their speech or language chose education less often as their greatest accomplishment than the remainder of the group.

2. There were fewer candidates who wished to improve their personal adjustment who wanted to be in the Navy five years from now.

Person most admired

1. In all these groups, the married men who admired their wives regarded sex role as their greatest accomplishment.

2. The receiving station personnel who admired a father or father figure were single, while those who admired a mother or mother figure were married. This difference is not found in either the candidate or recruit groups.

Greatest failure

1. Those who listed a vocational failure or a sex role failure were among the older men in the groups.

From the foregoing discussion, based upon the findings as summarized in Appendix B, Table 1, concerning differences in response frequency, certain tentative conclusions might be drawn as to the degree of similarity evident among the three groups. However, in many cases, a comparison of two groups indicates agreement on one category and disagreement on another within the same item, and so does not provide an answer to the question, "Does the pattern of responses of Group A on this item resemble more closely that of Group B or Group C?" Since it was of interest to determine whether the submarine candidate group gave responses similar to either the receiving station personnel or the recruits, a rough index of similarity was styled to answer this question.

Taking each item separately, the percentage difference for one category was obtained for each two-group comparison. The total of the percentage differences for all response categories (without regard for direction of difference) was obtained, and this total was taken as indicative of the degree of similarity between the two groups on that item. In other words, the lower the total of percentage differences, the more similar could the groups be considered on responses to that item.

Such comparisons then were made between candidates and receiving station men, candidates and recruits, and receiving station men and recruits. The results are summarized in Table 1 below, and the complete analysis may be found in Appendix B, Table 3.

Table 1.- Number of items on which greatest and smallest total percentage differences were found in comparison groups

GROUPS COMPARED	Largest difference	Smallest difference
Submarine candidates vs receiving station	6	10
Submarine candidates vs recruits	14	8
Receiving station vs recruits	9	10

To determine which of the other two groups the submarine candidates resembled, the comparison between the receiving station and the recruit groups was omitted, and the differences reanalyzed. By this method, the candidates and receiving station show the smallest differences on fourteen items. The candidates and recruits also have the smallest differences on fourteen items.

The results of the three-group comparison indicate that the most contrasting groups are the receiving station personnel and the recruits. Of more direct concern here, however, is the analysis of the candidates responses in comparison with the other two groups. On a strict numerical basis, there appears to be little justification for claiming that the candidates resemble either group more than the other. The items in which candidates most resembled receiving station men were:

- Time in home town
- Number of subjects preferred
- Pattern of subjects preferred
- Number of subjects failed
- Kinds of civilian jobs held
- Kind of sicknesses or injuries
- Reason for worst disease
- Type of people by whom upset
- Personal habits to be improved
- Person most admired
- Type of sports activity preferred
- Desired future in five years
- Three most cherished possessions
- Greatest failure

The items on which candidates most resembled recruits were:

- Age
- Marital status
- Children
- Highest school grade completed
- Time out of school
- Age at time left school
- Reason for leaving school
- Duration of civilian jobs
- Pattern of school subjects failed
- Number of sicknesses or injuries

Worst disease
Greatest accomplishment
Reason for crying
Possession of savings account

This breakdown of items seems to provide further indication of the fact that there is no strong tendency on the part of the submarine candidate group to respond with a high degree of similarity to either of the other two groups. Whether examined under the general category of work history, school history, medical history or other groupings of items, the candidates are seen to resemble receiving station men on some items and the recruits on others. There is no discernible tendency, either quantitatively or qualitatively, for the candidates to respond like either of the other two groups on the questionnaire items.

B. Reliability of the Confidential Questionnaire

To determine the consistency of the responses elicited from the submarine candidates, analysis was made of the 94 test-retest (with an interval of approximately seven weeks) questionnaires. First, the reliability may be expressed in terms of the number of inconsistencies per individual and secondly, in terms of the number of inconsistencies per item.

The distribution of the number of inconsistent items per individual is presented in Figure 1. The mean for the group was 7.9 inconsistencies. The standard deviation was 2.8, with a range of from two to thirteen inconsistencies for the group. No papers were found to be identical on both trials. On the basis of the thirty items involved in this analysis, the average consistency per individual is 74 per cent.

Table 2 presents the number and percentage of respondents who were inconsistent on each item.

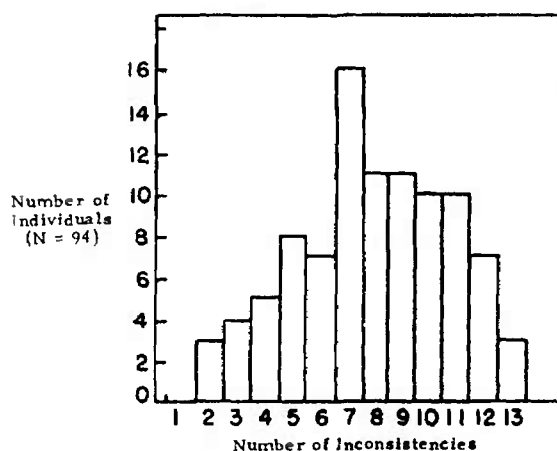


Figure 1.- Number of Inconsistent Responses Between Test and Retest on the Confidential Questionnaire Items

Table 2.- Number of inconsistencies per item on repeated administration of the Confidential Questionnaire, N-94.

ITEM	No. of respondents inconsistent	Percentage of respondents inconsistent
1. Number of subjects liked best	63	67
2. Number of sicknesses or injuries	55	59
3. Type of people by whom upset	50	53
4. Desired future in five years	38	40
5. Most admired person	37	39
6. Personal habit desirous of improving	37	39
7. Pattern of jobs held	36	38
8. Greatest accomplishment	34	36
9. Three most cherished possessions	34	36
10. Cause of crying	31	33
11. Number of subjects failed	30	32
12. Greatest failure	29	31
13. Worst illness	23	24
14. Type of sport preferred	22	23
15. Degree of sports proficiency	22	23
16. Longest job incumbency	21	22
17. Reason for worst illness	20	21
18. No. of places lived in past ten years	16	17
19. Interrupted education	10	11
20. Age at time of leaving school	9	10
21. Pay grade	9	10
22. Savings account	8	9
23. Reason for leaving school	7	7
24. Marital status	6	6
25. Highest school grade completed	6	6
26. Number of children	2	2

On the first ten items of Table 2, it may be observed, one-third or more of the respondents were inconsistent. Attention will be focussed on these items. The discrepancies on the first two items are, for the most part, attributable to additions or omissions of one or more listings, which in most cases do not affect the overall interpretations of the response. This is also true of the discrepancies on Item 7 above, wherein the number of jobs listed shows considerable variation from one form to the other. In addition, on this Item 7, there are many discrepancies which may be due to misinterpretations of the question as stated. Although asked to list the "jobs" which they had held, a large proportion of the individuals in the sample merely listed the name of the organization by which they were employed on one administration of the questionnaire and stated the actual position held on the other. Inconsistencies of this type can be prevented by clarifying the instructions preceding the item.

Two other items in the first ten, Items 5 and 10, involve numerous changes to a "none" or "nothing" response on the second administration. These changes may be accounted for in terms of the somewhat adverse conditions under which the second administration was held, and the probable lack of interest on the part of some men in completing the same form a second time.

The remaining five items listed in the first ten items, Items 3, 4, 6, 8 and 9, involve discrepancies for which there is no apparent explanation apart from genuine variation on the part of the subjects. It would appear that the matters involved in these questions are those to which most men had not given much thought in the past. In view of this, it is quite likely that these spontaneous responses would be subject to large day-to-day variation. The fact that many men would probably give more careful thought to such questions after seeing them for the first time, could be an additional factor serving to alter responses on the second administration.

It should be noted in this connection, however, that a considerable number of the discrepancies found in these items involves two responses which, while different, would fall under the same general classification in the coding system. This is especially true of Item 3 in the table, where many men changed their responses from one type of undesirable personality characteristic to another, both of which would be placed in the same general classification in the scheme for analyzing the data.

A general evaluation of the reliability of a questionnaire of this type must be focussed upon the purpose for which the questionnaire is designed. The present instrument was designed as an aid to the selection of successful submarine school candidates, by providing the interviewer with pertinent information about the candidate.

With this end in view, there are two answers to the question of reliability. Those items comprising the personal history questions and constituting approximately two-thirds of the questionnaire possess acceptable reliability. It is from these questions that validity may be expected. It remains to discover which of these items of acceptable reliability has validity, by comparing the responses of successful candidates with those of unsuccessful candidates.

The last third of the questionnaire is comprised of items which call for opinions or judgments on the part of the applicant. It is on these items that inconsistencies are most commonly found. Because of the tendency to respond in a different manner on these items, as shown in the test-retest situation, interpretation of such responses must be made with great caution.

C. Validity of the Confidential Questionnaire

Aside from its utility in describing individual men and groups of men, the value of an instrument such as the Confidential Questionnaire is enhanced to the degree that it indicates differential patterns of responses between successful and non-successful submarine school candidates. Such differential patterns, if determined, have the advantage of

being available to the interviewer as an additional empirical factor to be considered by him in his final assessment of the applicant.

With this objective in mind, the records of the 1198 candidates who had completed the questionnaire were later examined to discover which of them had not successfully completed the course at the submarine school. This revealed that the number of such men was 161. Of these, 53 were disqualified solely because of physical handicaps, such as low visual acuity, low auditory acuity, etc. For the 108 remaining men, the reasons for rejection were tabulated in an attempt to form groups rejected for different reasons. Two such groups were finally derived so that the results on the entire group of unsuccessful candidates may be analyzed under three groupings:

Group I - Academically disqualified

This group is composed of men who were placed in the general category of academic failure, and including those who could not pass the course work as well as those who evidently did not apply themselves in school. There were 38 such cases.

Group II - Temperamentally disqualified

This group is best described as a broad category of psychological disqualifications. In a negative sense, the group includes all (rejected) men who were not rejected for physical unfitness or academic failure. The comments listed on the records of these men were of three types: (1) temperamentally unsuited for submarine duty; (2) psychologically unadapted for submarine duty; and (3) no longer a volunteer. The number of men in Group II was 70.

Group III - Physically disqualified

This group was rejected for physical reasons alone.

The responses of each of these three groups to the items on the questionnaire were tabulated and compared with the frequency distributions of the successful candidates, 1037 in number. The complete distribution of item responses for the three rejected groups and the successful candidates may be found in Appendix C, Table 1. Before the consideration of this comparison, the great discrepancy in the size of the two unsuccessful groups, as compared

with the successful group, should be noted. Because of the small number of rejected cases, the analysis can only be taken as indicative of possible differences which might prove of value if a sufficiently large sample of dropped cases were compiled.

Group I - Academically disqualified

As might have been expected, the differences between the successful group and those dropped for academic reasons are found mainly in the items having to do with educational background. Forty-five per cent of the academic failures reached grades lower than the fourth year of high school, against only 20% of the successful group. There are also differences in the reason given for leaving school. Almost half of the successful men (46%) left because of graduation, but a high majority of the academic failures left for other reasons, such as entering the service, going to work, etc., with only 29% leaving because of graduation.

An additional difference can be pointed out with regard to the pattern of school subjects preferred. Although the "no evident pattern" category constitutes the majority in both groups, there are a sizable number of successful candidates who listed scientific-mathematical subjects, while only one individual in the academic failure group listed such subjects.

The remaining large difference between these two groups is found in response to the question, "What is your greatest accomplishment?" Twice as many successful candidates (32%) as the academic failures (16%) chose education. The modal category for the latter was physical or athletic proficiency. The successful group also considered their civilian job as their greatest accomplishment more than the failures, who had a higher proportion of responses such as "joining the Navy," and "making Sub-School."

Group II - Temperamentally disqualified

Analysis of the data from this group indicates that they differed

from the successful candidates on many of the same items as the academic failures. Just as in the latter group, the more pronounced discrepancies deal with educational factors.

The highest school grade achieved is considerably lower in this group of temperamental failures than in the successful group. Fifty per cent failed to reach the fourth year of high school, compared with 20% of the successful group. Again, a smaller number (27%) reported graduation as the reason for leaving school, with "entering the service" the most frequently reported reason.

Although not as pronounced, there is a tendency for the temperamental failures to respond differently when asked for their greatest accomplishment. They indicate a civilian job less often than the successful men, and more often list their entry into the Navy or entering submarine school. One additional difference involves a tendency on the part of the temperamental failures to select interpersonal relations as the personal habit which they desire to improve to a greater extent than the successful group does.

The results of the comparisons of both groups of rejected candidates indicate that irrespective of the reason for rejection, the items which differentiate between successful men and those who do not complete submarine school are concerned chiefly with academic factors. In fact, although the academic failure group had not attained as high a grade as the successful candidates, the temperamental failures had less education than both groups. It is interesting to note that whereas the academic failures indirectly indicated their realization of this fact by not selecting education very often as their greatest accomplishment, the temperamental failure group, with even less formal education, chose education on this item almost as frequently as the successful men.

Group III - Physically disqualified

Although those men who were rejected for physical reasons

alone are not directly the concern of the interview process, since they are eliminated by strictly physical tests, the responses of this group of 53 men were included to see how they compared with the other groups herein discussed. It is difficult to predict beforehand how such a group might be expected to respond. On the other hand, it might be surmised that unknown and unknowable influences of the physical handicap might serve to make such individuals widely deviant from a physically normal group on many variables. Another hypothesis, and one perhaps more plausible, is that such a group should not be expected to differ significantly from successful candidates, except on items related to physical qualifications. Such hypothesizing is made more difficult by the lack of available information as to the type of defect which resulted in the disqualification.

When this group of physical rejects was compared with the other three groups involved in this part of the analysis, the academic failures, temperamental failures and successful candidates, it was found that in most of the cases where noticeable differences existed, the physically disqualified were akin to the successful candidates and different from both of the other rejected groups. They had lived in fewer places, were less often married, had achieved higher school grades, graduated more often, held civilian jobs for longer periods and had less sicknesses or injuries than the other rejected groups. They differed from all three other groups in reporting more operations, in choosing operations more often as their worst disease, in preferring physical contact sports more often and in listing entry into service as the reason for leaving school less often than the other groups.

If those items related to physical factors are not considered, the physical failure group can be viewed more like the successful candidate group than the academic and temperamental failures. Although these men did not have the opportunity of attending submarine school, these results tend to indicate that the physical disability was the only factor among those sampled by the questionnaire operating against their

success. It seems further indicated that the total group of rejected applicants can be legitimately classified into separate sub-groups which are at least partly identifiable on the basis of response patterns.

Additional evidence for these conclusions was found when the index of similarity described and utilized in a previous section was applied to the present data. Results of this analysis indicate that the greatest differences in distribution of responses per item are found between the submarine school graduates and the academically disqualified. The smallest differences are found between the graduates and the physically disqualified. A summary of the results is presented in Table 3 following. The complete analysis may be found in Appendix C, Table 2.

Table 3.- Number of items on which largest and smallest total percentage differences were found in comparison of successful and unsuccessful groups of submarine candidates

Groups compared	Largest difference	Smallest difference
Submarine school graduates vs academically disqualified	20	6
Submarine school graduates vs temperamentally disqualified	6	10
Submarine school graduates vs physically disqualified	5	14

The items which have been mentioned thus far as indicating some distinguishing factors have been almost exclusively located in the first or factual part of the questionnaire. The section containing questions related to personality structure was not found to be discriminatory. It has been thought that the characteristics which made for psychologi-

cal disqualifications might be revealed by the responses to such items, but this was not the case. However, this does not mean that these personality differences can not be discovered. If the hypothesis is granted that psychological differences do exist between successful men and other groups, then the difference must lie not in the response per se, but in the reasons underlying the responses. It is doubtful whether such reasons can be brought to light by questionnaire methods alone, without the skillful probing of an experienced interviewer.

In considering the effectiveness of the Confidential Questionnaire as a screening device, as well as the entire selection procedure, one should not lose sight of the fact that the selection problem involved is a very difficult one. The relative ease of any selection procedure is, among other things, a function of the heterogeneity of the group concerned with respect to the traits required for doing the job. If the variable or characteristic which is being investigated admits of a wide range of distribution, the task of classifying the subjects into separate groups is facilitated. However, if the individuals are closely clustered, either because of previous selection or natural ability, this homogeneous state presents a formidable difficulty in any attempt to divide the group under consideration further.

The problem of selecting submarine personnel falls under the latter category. All of the applicants for submarine service have, of course, previously met the mental, physical and psychological requirements of the naval service. By this procedure a fairly homogeneous group has already been formed. Since the difference between submarine personnel and other Navy men is considerably less marked than between those men who meet general naval requirements and those who do not, this further division presents great difficulty.

For this reason, it should not be expected that any single instrument such as the Confidential Questionnaire can segregate with complete accuracy the successful submarine candidates from the unsuccessful.

It is only by the use of a combination of measures that this goal can be achieved. It is encouraging, however, to find that the Confidential Questionnaire does provide indications which can be of help in increasing the efficiency of this selection procedure.

SUMMARY EVALUATION

Analyses of completed Confidential Questionnaires have been performed from several standpoints as follows:

1. How do the responses of the submarine candidates differentiate them as a group from other classifications of naval personnel, such as recruits and fleet personnel other than submariners?
2. What is the typical submarine candidate like, as indicated by his responses on the questionnaire?
3. How reliable is the questionnaire, i.e., how consistent are an individual's responses?
4. How well can the successful candidates be separated from the unsuccessful ones on the basis of the responses to items on the questionnaire?

The partial answers determined for these inquiries in the course of study have revealed certain facts which can be utilized to increase the effectiveness of the questionnaire in the future. Foremost among these findings appears to be the distinction which should be made between the use of the items which are factual in nature and those which are subjective or attitudinal in nature. Results from the appropriate analyses indicate differences in reliability and validity between the two types of questions. With regard to reliability, there appears to be a considerable amount of day-to-day variation on the items of personality manifestations, while those referring to past history are fairly stable. Similarly, with regard to validity, those items which seem to have potential discriminative value for predicting success are found chiefly among the factual type. The distribution of responses on personality type queries does not

provide any empirical basis for selecting successful candidates.

A further factor to be considered, not as yet reported in the foregoing discussion of the results, is the somewhat ambiguous nature of the items as phrased in the present form. Examination of the stated responses indicated that many of the applicants misinterpreted several questions which resulted in their furnishing undesired information. Several examples may be employed for illustration. When candidates were asked "List below all the jobs you have held during the last ten years," and "Which job was the best?", many stated the name of the organization by which they were employed, with no further information as to the nature of the work they were doing. Thus an occupational classification for the whole group became at best a questionable one. Further, when asked to name the places in which they had lived, several men stated some naval installations at which they had been stationed. Although such responses would be noticed by an interviewer, they complicate an attempt to gather data empirically.

Finally, another item providing difficulty for some men concerns the highest grade completed in school. The applicant was asked to encircle one of a series of numbers proceeding from seven through sixteen. The fact that seven and eight referred to grade school, 9-12 to high school, and 13-16 to college, undoubtedly was not recognized by a few of the respondents. This resulted in such apparent absurdities as men having completed two or three years of college who left school at the age of 14 or 15.

In order to facilitate completion of the questionnaire and tabulation of responses, it would appear profitable to present more of the items in the form of fixed response questions, in which the candidate would merely have to indicate the choice which best answers the question. Previous studies on various types of questionnaires have shown that more reliable information is obtained when the amount of writing subjects are requested to do is limited as much as possible. Such extraneous

variables as embarrassment over poor spelling and inadequacy of expression are thereby overcome. The respondent finds it quicker and easier to respond, and tabulation of responses is free from the influence of the investigator's interpretation. These considerations, of course, apply to a lesser extent to those questions which are designed to reveal personality characteristics.

For the above reasons, and others which suggest changes in item structure which will be discussed below, it is believed that the selection procedure would derive increased benefit from a revision of the present questionnaire.

A recommended form of this revised questionnaire is presented in Appendix D. It will be seen that the principal change has been to divide the questionnaire into two parts, along the lines indicated in the present discussion. Part I deals only with personal history, education, work history and medical history; in other words, questions of fact, not opinion.

The section on Personal History involved only one change from the original questionnaire. In the revised form the subject is asked only the number of places he has lived in during the year prior to his entry into the service. As originally stated the item did not call forth the same type of information from each respondent. For example, places of military service were often included. By restricting the time period involved to the ten pre-service years, the responses are placed on a more comparable basis. If the number given by the respondent is unduly large, the interviewer can determine the possible significance of this through further questioning.

Under Educational History, the items related to highest school grade completed has been altered to overcome the response difficulties described above. Also, in keeping with the general aim of objectivity, the two items dealing with the reason for leaving school and school subjects liked and disliked have been changed to multiple choice items, including in the choices the most frequently occurring responses. The

terms "liked" and "disliked" have been used with regard to school subjects in place of "did best in" and "failed." It is felt that these changes are most likely to produce an honest response, without attendant embarrassment, and still provide the desired information, since preference for a subject has been found to be quite highly correlated with proficiency.

The instructions related to the listing of jobs in the Work History section have been revised to insure that the type of position the respondent held will be identified. Since the period of job incumbency can be determined from the items, the item on the original questionnaire dealing with this question has been eliminated. An added item in the section refers to periods of unemployment, a factor which has been shown to have significance in other personnel studies. The question of savings accounts has been eliminated since it showed no tendency whatever to discriminate between different groups of men.

Under Medical History, a multiple choice item has again been utilized, incorporating the most frequent responses.

Part II is concerned with personality manifestations, and the format has remained essentially unchanged. However, three new items have been added. Two of these are for the most part, logically complementary to previously existing items. In the revised form, the applicant is asked the kind of people he likes to be with as well as those who upset him, and also the personal characteristic he is most proud of, as well as the one he wants to improve. It will be noted that the phrase "personal habits" has been changed to read "personal characteristics." The latter wording seemed more likely to elicit responses of potential use to the interviewer. The other new item asks the applicant to state why he is interested in submarine service. Although an analysis of interviews has indicated that this question or a similar one is usually asked, the reply to this type of question is of sufficient importance to warrant inclusion.

It is the belief of the investigators that this modified form of the

Confidential Questionnaire will provide increased assistance to the interviewer in his attempt to assess the applicant's suitability for submarine service. It should be remembered that the primary purpose of the questionnaire is to gather information about the candidate quickly and effectively for use in the interview proper. Accordingly, the design of the instrument must be such as to facilitate this purpose, and this has been kept primary in the recommendations made.

The basic assumption underlying any interview procedure is that those who will be successful in a given task, can be identified by certain factors before the task is undertaken. This assessment is likely to be effective roughly in proportion to the amount of empirical data available to the interviewer. On the other hand, it is doubtful whether a completely empirical procedure can ever be wholly adequate for evaluating success. The intangibles which are important factors in this problem usually resist strict classification. Thus the participation of a skilled interviewer is necessary in order to make the ultimate assessment of an applicant.

It is obvious from the above that the appropriate basis of selection is one that embodies both procedures. The two-part form of the revised questionnaire has been constructed with this aim in view. It is anticipated that the responses to Part I can be quickly checked against existing frequency distributions. This will provide a prediction element in addition to, and presumably independent of, that obtained by the interviewer through his questioning of the applicant. Part II, on the other hand may have potential use by eliciting responses which can be employed as points of departure for questioning in the interview itself. However, at this stage the diagnostic value of the second part of the questionnaire is as yet undemonstrated. The use of the Confidential Questionnaire in these ways, it is felt, will greatly enhance its value in the selection process.

APPENDIX A

THE CONFIDENTIAL QUESTIONNAIRE

Name _____
(last) (first) (middle)

Rate _____ Service No. _____ USN or USNR _____ Date _____

Place of Birth _____ Date of Birth _____
(city) (state)

Marital Status: Single _____ Engaged _____ Married _____
Separated _____ Divorced _____ Widowed _____

Children: None _____ Number of Sons _____ Number of Daughters _____

Present Home Town: _____
(city) (state)

How long have you lived there? _____
(years)

List below places you have lived (considered to be your home address) during the past ten years, with approximate dates:

_____ From _____ To _____
(city) (state) (approx. dates)

_____ From _____ To _____

_____ From _____ To _____

Encircle last grade completed in school: 7 8 9 10 11 12 (13 14 15 16)
(If you completed high school through USAFI or GED, and received a diploma for that training, then circle 12 or whatever is appropriate).

Were you ever out of school for more than six months? Yes _____ No _____

How old were you when you left school? _____ Why did you leave? _____

What grades or subjects did you do best in? _____

Which ones did you fail, _____

EXCLUDING military service, what was the longest time you held a job?

_____ (years) _____ (months)

DO NOT STOP - Turn the page and continue right on.

CONFIDENTIAL QUESTIONNAIRE

List below the jobs you have held during the last ten years, and approximate dates:
(consider six (6) months for minimum time)

_____ from _____ to _____
_____ from _____ to _____
_____ from _____ to _____
_____ from _____ to _____
_____ from _____ to _____

Which JOB was the best? _____

Do you have a savings account? Yes _____ No _____

What sicknesses or injuries have you had? (Include also operations, accidents,
and childhood diseases - throughout your lifetime):

_____ Which sickness was the worst? _____
_____ Why? _____

What do you consider your greatest accomplishment? _____

What do you consider your greatest failure? _____

What kind of people upset you? _____

Which of your personal habits would you like to improve? _____

What makes you cry? (of an emotional nature): _____

Whom do you most admire? _____

What is your favorite sport? _____ How well do you play it?

What do you want to be doing five years from now? _____

What are your three most cherished possessions: (not necessarily material things):

(1) _____ (2) _____ (3) _____

APPENDIX B

TABLE 1. THE DISTRIBUTION OF RESPONSES OF THE FOLLOWING THREE GROUPS OF ENLISTED NAVAL PERSONNEL ON THE ITEMS CONTAINED IN THE CONFIDENTIAL QUESTIONNAIRE:

- (1) Submarine Candidates (SC).....N=1198
- (2) Receiving Ship (RS).....N= 480
- (3) Recruits (R).....N= 500

TABLE 2. THE MODAL RESPONSES OF THE THREE GROUPS ON THE CONFIDENTIAL QUESTIONNAIRE

TABLE 3. SUM OF PERCENTAGE DIFFERENCES BETWEEN THE THREE GROUPS ON THEIR DISTRIBUTIONS OF RESPONSES TO EACH ITEM ON THE CONFIDENTIAL QUESTIONNAIRE

APPENDIX B

Table 1. - Distribution of Responses on Three Groups of Enlisted Personnel on the Items Contained in the Confidential Questionnaire — Submarine Candidates, Receiving Ship Men, and Recruits.

Section 1						
Pay Grade	SC†		RS**		R***	
	f	%	f	%	f	%
SR, FR, TR	7	1	—	—	441	88
SA, FA, TA	686	57	46	10	57	11
SN, FN, TN	224	19	129	27	2	0
PO3	127	11	117	24	—	—
PO2	82	7	88	18	—	—
PO1	65	5	68	14	—	—
CPO	7	1	31	6	—	—
No Response	—	—	1	0	1	0
Section 2						
Age	SC†		RS**		R***	
	f	%	f	%	f	%
17 or younger	39	3	2	0	66	14
18	94	8	10	2	102	20
19	226	19	23	5	107	21
20	255	21	30	6	122	24
21-25	468	39	247	51	86	17
26-29	100	8	95	20	2	0
30 or over	16	1	64	13	1	0
No Response	—	—	9	2	14	3
Section 3						
Length of Time in Present Home Town (yrs)	SC†		RS**		R***	
	f	%	f	%	f	%
Less than one half	20	2	18	4	13	3
1	61	5	43	9	16	3
2	46	4	26	5	10	2
3	52	4	19	4	12	2
4	50	4	21	4	17	3
5	59	5	22	5	10	2
6	38	3	17	4	16	3
7	28	2	7	1	12	2
8	16	1	11	2	10	2
9 or more	790	66	292	61	382	76
No Response	38	3	4	1	2	0
Section 4						
Marital Status	SC†		RS**		R***	
	f	%	f	%	f	%
Single	897	74	200	42	414	83
Engaged	89	7	40	8	46	9
Married	190	16	211	44	32	6
Separated	6	1	14	3	2	0
Divorced	11	1	13	3	1	0
Widower	2	0	1	0	2	0
No Response	3	0	1	0	3	1
Section 5						
Number of Children	SC†		RS**		R***	
	f	%	f	%	f	%
0	800	67	66	14	414	83
1	66	5	271	56	4	1
2	28	2	86	18	3	1
3	9	1	42	9	—	—
4	2	0	9	2	—	—
5	—	—	6	1	—	—
No Response	293	24	—	—	79	15
Section 6						
Highest School Grade Completed	SC†		RS**		R***	
	f	%	f	%	f	%
7th	2	0	16	3	10	2
8th	25	2	40	8	25	5
9th	45	4	44	9	36	7
10th	114	10	78	16	75	15
11th	122	10	50	10	74	15
12th	691	58	191	40	224	45
1st year college	120	10	12	2	19	4
2nd year college	61	5	13	3	20	4
3rd year college	8	1	9	2	4	1
4th year college	5	0	14	3	9	2
No Response	5	0	13	3	4	1
Section 7						
Interrupted Education	SC†		RS**		R***	
	f	%	f	%	f	%
Yes	128	11	92	19	58	12
No	1054	87	380	79	428	86
No Response	16	1	8	1	14	2
Section 8						
Age at time of leaving school	SC†		RS**		R***	
	f	%	f	%	f	%
17 or younger	609	51	327	69	259	52
18	318	26	85	18	135	27
19	121	10	19	4	55	11
20	46	4	11	2	14	3
21-25	33	3	15	3	15	3
26-29	3	0	4	1	2	0
30 or over	—	—	1	0	—	—
No Response	68	6	18	4	17	3
Section 9						
Reason for Leaving School	SC†		RS**		R***	
	f	%	f	%	f	%
Graduated	531	44	130	27	212	42
Service	277	23	133	28	60	12
Work	147	12	83	17	129	26
Drafted	13	1	6	1	—	—
Independent of family	2	0	3	1	8	2
Wanderlust	5	0	7	1	4	1
Help Financially	58	5	42	9	21	4
Miscellaneous	81	7	48	10	36	7
No Response	84	7	28	6	30	6
Section 10						
Number of Subjects Liked Best	SC†		RS**		R***	
	f	%	f	%	f	%
None	3	0	9	2	5	1
1	250	21	121	25	74	15
2	507	42	195	40	146	30
3	298	25	102	21	147	30
4	97	8	28	6	68	13
5	27	2	8	1	37	7
6	4	0	4	1	6	1
7	—	—	—	—	3	1
8	—	—	1	0	1	0
9	4	0	—	—	—	—
"All"	—	—	6	1	3	1
No Response	8	1	6	1	10	2

† Submarine Candidate

** Receiving Ship Men

*** Recruits

Section 11

Pattern of Subjects Liked Best	SC†		RS**		R***	
	f	%	f	%	f	%
Scientific	211	18	69	14	73	14
Language	51	4	14	3	16	3
Mechanical	108	9	43	9	97	20
Social sciences	19	2	37	7	36	7
Clerical	6	1	15	3	21	4
Miscellaneous	8	1	16	3	12	2
No evident pattern	787	66	280	58	235	48
No Response	8	1	6	1	10	2

Section 12

Number of Subjects Failed	SC†		RS**		R***	
	f	%	f	%	f	%
0	604	50	200	42	312	62
1	417	35	201	42	109	22
2	105	9	51	11	32	6
3	8	1	11	2	6	1
4	1	0	3	1	—	—
No Response	63	5	14	4	41	9

Section 13

Pattern of Subjects Failed	SC†		RS**		R***	
	f	%	f	%	f	%
Scientific	30	3	52	11	17	3
Language	116	10	51	11	19	4
Mechanical	—	—	1	0	3	1
Social Sciences	17	1	13	3	11	2
Clerical	1	0	6	1	—	—
Miscellaneous	1	0	5	1	2	0
No evident pattern	970	81	336	70	407	81
No Response	63	5	16	4	41	9

Section 14

Longest Job Incumbency	SC†		RS**		R***	
	f	%	f	%	f	%
No civilian jobs	186	16	61	13	55	11
6 months or less	168	14	41	9	66	13
6 months to 1 year	180	15	50	10	72	14
1 year to 2 years	249	21	90	19	140	28
2 years to 4 years	280	23	165	34	128	26
5 years or more	85	7	70	15	27	5
No Response	50	4	3	1	12	3

Section 15

Pattern of Jobs Held	SC†		RS**		R***	
	f	%	f	%	f	%
Professional and managerial	41	3	9	2	8	2
Clerical and sales	142	12	39	8	77	15
Service	31	3	14	3	7	1
Agricultural	103	9	15	3	7	1
Skilled	99	8	29	6	16	3
Semi-skilled	81	7	132	27	155	31
Unskilled or ambiguous	455	38	158	33	151	30
None	184	15	74	15	46	9
No Response	57	5	10	2	33	6

Section 16

Savings Account	SC†		RS**		R***	
	f	%	f	%	f	%
Yes	816	68	316	66	336	67
No	372	31	159	33	158	32
No Response	10	1	5	1	6	1

Section 17

Number of Sicknesses or Injuries	SC†		RS**		R***	
	f	%	f	%	f	%
0	90	7	48	10	41	8
1	238	20	78	16	82	16
2	293	24	112	23	120	24
3	283	23	121	25	125	25
4	164	14	64	13	70	14
5	93	8	33	7	36	7
6	19	2	9	2	18	4
7	9	1	6	1	2	0
8	1	0	3	1	—	—
9	—	—	1	0	—	—
No Response	8	1	5	1	6	1

Section 18

Type of Sickness or Injury	SC†		RS**		R***	
	f	%	f	%	f	%
Childhood communicable	279	23	150	31	245	49
Operations	32	3	37	8	34	7
Accidents	98	8	31	6	39	8
Venereal disease	1	0	2	0	—	—
Respiratory disease	26	2	20	4	5	1
Skin disease	5	1	—	—	1	0
Miscellaneous	659	55	187	39	129	26
Stated "none"	90	8	48	10	41	8
No Response	8	1	5	1	6	1

Section 19

Worst Illness	SC†		RS**		R***	
	f	%	f	%	f	%
Childhood communicable	300	25	104	22	126	25
Operations	149	12	71	15	71	14
Accidents	252	21	52	11	63	13
Venereal disease	4	1	4	1	1	0
Respiratory disease	147	12	62	13	42	8
Skin disease	12	1	7	1	7	1
Miscellaneous	70	6	60	12	39	8
Stated "none"	92	8	57	12	60	12
No Response	172	15	63	13	91	18

Section 20

Reason for Worst Illness	SC†		RS**		R***	
	f	%	f	%	f	%
Duration, confinement	222	18	94	20	44	9
Severity, including pain	367	30	97	20	104	21
Fear of permanent injury	49	4	23	5	26	5
Personal inconvenience	152	13	83	17	108	22
Operation required	34	3	14	3	15	3
Appearance affected	5	0	6	1	16	3
Delirium, mental aspects	3	0	8	1	—	—
Other, e.g., only one had, only one remembers, etc.	105	9	40	8	33	6
None	10	1	50	10	26	5
No Response	251	21	65	14	128	25

† Submarine Candidate

** Receiving Ship Men

*** Recruits

Section 21

Greatest Accomplishment	SC†		RS**		R***	
	f	%	f	%	f	%
Education and self-improvement	375	31	146	30	166	33
Physical	85	7	9	2	47	9
Joining Navy	81	7	42	8	47	9
Making sub school	58	5	1	0	—	—
Sex role	77	6	84	17	25	5
Civilian job	152	13	58	12	75	15
Reputation	42	3	8	2	14	3
Service to others	18	1	10	2	10	2
Achievement in science	124	10	—	—	1	0
Miscellaneous	153	13	78	16	60	12
Stated "none"	18	1	32	7	36	7
No Response	15	1	12	2	19	4

Section 22

Greatest Failure	SC†		RS**		R***	
	f	%	f	%	f	%
Incomplete education	276	39	149	31	165	33
Low level of accomplishment in skills or school subjects	106	15	59	12	49	10
Navy	6	1	50	10	6	1
Vocational failures	58	8	45	9	29	6
Personal characteristics	65	9	29	6	15	3
Sex role	22	3	28	6	4	1
Money failures	24	3	18	4	6	1
Home relationships	16	2	8	2	4	1
Miscellaneous	76	11	23	5	35	9
None	21	3	52	11	132	26
No Response	36	5	19	4	55	11

* These frequencies are based on a sample of only 706 respondents. The question was not included in one re-produced set of the forms.

Section 23

Type of People by Whom Unset	SC†		RS**		R***	
	f	%	f	%	f	%
Undesirable physical characteristics	12	1	3	1	9	2
Undesirable personality characteristics	653	54	212	44	330	66
Undesirable habits	164	14	51	11	36	7
Undesirable affiliations	1	0	2	0	2	0
Talkative	43	4	17	4	18	4
Loud	160	13	89	19	21	4
Racial and religious	2	0	1	0	7	2
Political	2	0	2	0	—	—
Miscellaneous	43	4	38	8	20	4
None	99	8	51	13	46	9
No Response	19	2	4	1	11	2

Section 24

Personal Habits Wants to Improve	SC†		RS**		R***	
	f	%	f	%	f	%
Speech, language	153	13	43	9	66	13
Cursing	100	8	13	3	25	5
Neatness	132	11	26	5	50	10
Smoking	124	10	51	11	53	11
Drinking	19	2	27	6	7	1
Relations with others	227	19	61	13	51	10
Personal adjustment	134	11	85	18	54	11
Acquisition of knowledge	144	12	51	11	39	8
Nailbiting	17	1	20	4	58	11
Miscellaneous	93	8	48	10	21	4
None, or undecided	19	2	44	9	30	6
No Response	36	3	11	2	46	9

Section 25

Cause of Crying	SC†		RS**		R***	
	f	%	f	%	f	%
Death of loved one	537	45	97	20	208	42
Sadness-sorrow	133	11	52	11	44	9
Personal emotional outbursts	89	7	24	5	48	10
Pleasant emotions	45	4	12	5	8	2
Personally hurting others	15	1	4	1	7	1
Empathetic and sympathetic reactions	73	6	86	18	48	9
Miscellaneous	124	10	64	13	56	11
Don't know	19	2	9	2	8	2
Nothing	131	11	117	24	39	8
No Response	32	2	15	3	34	7

Section 26

Most Admired Person	SC†		RS**		R***	
	f	%	f	%	f	%
Anyone with good qualities	159	13	47	10	46	9
Father	255	21	65	14	64	13
Father figure	129	11	10	2	30	6
Mother	201	17	56	12	59	12
Mother figure	13	1	7	1	9	2
Son	15	1	8	2	1	0
Wife (sweetheart)	105	9	123	26	40	8
Hero figure	88	7	42	9	112	22
Family; parents	188	16	61	13	51	10
Miscellaneous	14	1	32	7	49	10
No one	5	0	12	2	13	3
No Response	26	2	17	4	26	5

Section 27

Type of Sport Preferred	SC†		RS**		R***	
	f	%	f	%	f	%
Team play, physical contact	399	33	142	30	142	28
Team play, no physical contact	365	30	184	39	210	42
Individual, competitive	172	14	61	13	48	10
Individual, non-competitive	242	20	78	16	85	17
Other	11	1	3	1	6	1
None	4	0	9	2	4	1
No Response	5	0	3	1	5	1

Section 28

Degree of Sports Proficiency	SC†		RS**		R***	
	f	%	f	%	f	%
Poor	66	5	44	9	21	4
Average	647	54	285	60	231	46
Good	437	36	94	20	200	40
No indication	19	2	34	7	31	6
No Response	29	3	23	5	17	4

Section 29

Desired Future in Five Years	SC†		RS**		R***	
	f	%	f	%	f	%
Navy	506	42	107	22	50	10
Related career	—	—	4	1	15	3
Own business	92	8	51	11	55	11
Job-unskilled	20	2	6	1	4	1
Job-semi-skilled	9	1	24	5	38	8
Job skilled	61	5	22	5	69	14
Job-white collar professional	56	5	36	7	27	5
Civilian schooling	110	9	10	2	13	3
Farming	17	2	10	2	6	1
Other	289	24	198	41	188	38
"Don't know"	27	2	10	2	27	5
No Response	11	1	2	0	8	2

† Submarine Candidate

** Receiving Ship Men

*** Recruits

Section 30

Three Most Cherished Possessions*	SC†		RS ^{1,2}		R ^{3,4}	
	f	%	f	%	f	%
Father	66	2	65	5	142	9
Mother	117	3	93	7	165	11
Other members of immediate family	62	2	54	4	109	7
Family, (wife, children)	994	27	448	33	250	17
Concepts, (love, home, background)	850	23	327	17	432	29
Career in Navy	5	0	5	0	4	0
Health	340	11	106	8	69	5
Material things	826	22	285	22	234	16
Education	68	2	9	1	11	1
Achievement (job)	39	1	18	1	5	0
None	10	1	4	0	1	0
No Response	217	6	26	2	78	5

* Since each individual's 3 choices were tabulated, the totals are 3 times the group N.

APPENDIX B

Table 2. - The Modal Responses of the The Three Groups on the Confidential Questionnaire

Item	Submarine Candidate	Receiving Station Personnel	Recruit
Pay grade	SA, FA, TA	SN, FN, TN	SR, FR, TR
Age	20 or younger	21-25	20 or younger
Length of time in present home town (years)	9 or more	9 or more	9 or more
Marital status	Single	Married	Single
Number of children	0	1	0
Highest school grade completed	12th	12th	12th
Interrupted education	No	No	No
Age at time of leaving school	17 or younger	17 or younger	17 or younger
Reason for leaving school	Graduation	Service	Graduation
Number of subjects liked best	2	2	2 and 3
Pattern of subjects liked best (Pattern most evidenced)	No pattern (Scientific)	No pattern (Scientific)	No pattern (Mechanical)
Number of subjects failed	None	None and one	One
Pattern of subjects failed	No pattern	No pattern	No pattern
Longest job incumbency	2-4 years	2-4 years	1-2 years
Pattern of jobs held	Unskilled	Unskilled	Semi-skilled
Saving account	Yes	Yes	Yes
Number of sicknesses or injuries	2	3	3
Type of sicknesses or injuries	Miscellaneous	Miscellaneous	Childhood communicable
Worst illness	Childhood communicable	Childhood communicable	Childhood communicable

APPENDIX B

Table 3.- Sum of Percentage Differences Between the Three Groups on
Their Distributions of Responses to Each Item on the Confidential Questionnaire

Item	SC vs RS	SC vs R	RS vs R
Pay grade	94	176	178
Age	76	62	134
Length of time in present home town	17	25	34
Marital status	66	23	87
Number of children	154	13	168
Highest school grade completed	57	43	24
Interrupted education	16	3	15
Age at time of leaving school	37	7	49
Reason for leaving school	35	31	50
Number of subjects liked best	15	36	45
Pattern of subjects liked best	22	43	23
Number of subjects failed	19	32	52
Pattern of subjects failed	25	17	34
Longest job incumbency	29	17	34
Pattern of jobs held	41	58	31
Savings account	4	2	2
Number of sicknesses or injuries	12	10	7
Type of sickness or injury	36	70	48
Worst illness	29	23	20
Reason for worst illness	34	41	38
Greatest accomplishment	45	34	33
Greatest failure	43	55	54
Type of people by whom upset	29	31	52
Personal habit desirous of improving	47	52	43
Cause of crying	47	26	63
Person most admired	57	59	47
Type of sport preferred	18	24	10
Degree of sports proficiency	33	18	41
Desired future in five years	55	85	36
Three most cherished possessions	29	50	51

APPENDIX C

TABLE 1. THE DISTRIBUTION OF RESPONSES OF THE FOLLOWING FOUR GROUPS OF SUBMARINE CANDIDATES ON THE ITEMS CONTAINED IN THE CONFIDENTIAL QUESTIONNAIRE:

(1) Submarine School Graduates (SSG)	N=1037
(2) Academically Disqualified (AD)	N= 38
(3) Temperamentally Disqualified (TD)	N= 70
(4) Physically Disqualified (PD)	N= 52

TABLE 2. SUM OF PERCENTAGE DIFFERENCES BETWEEN SUCCESSFUL AND UNSUCCESSFUL GROUPS ON THEIR DISTRIBUTIONS OF RESPONSES TO EACH ITEM ON THE CONFIDENTIAL QUESTIONNAIRE

APPENDIX C

Table 1. - Distribution of Responses of Four Groups of Submarine Enlisted Candidates, Those who became Submarine School Graduates, or were Academically Disqualified, Temperamentally Disqualified, or Physically Disqualified.

Section 1						Section 6					
Pay Grade	SSG†		AD**		TD***		PD****				
	f	%	f	%	f	%	f	%			
SR, FR, TR	6	1	1	3	—	—	—	—			
SA, FA, TA	589	57	27	71	39	56	31	60			
SN, FN, TN	185	18	7	18	18	26	14	27			
PD3	115	11	3	8	6	9	3	6			
PO2	73	7	—	—	5	7	3	6			
PD1	62	6	—	—	2	3	1	2			
CPD	7	1	—	—	—	—	—	—			
Section 2						Section 7					
Age	SSG†		AD**		TD***		PD****				
	f	%	f	%	f	%	f	%			
17-or younger	30	3	3	8	4	5	2	4			
18	75	7	6	16	8	11	5	10			
19	192	19	8	21	12	17	13	25			
20	226	22	6	16	13	19	10	19			
21-25	408	39	14	37	28	40	18	35			
26-29	89	9	1	3	5	7	4	8			
30 or over	17	2	—	—	—	—	—	—			
Section 3						Section 8					
Home Town (yrs)	SSG†		AD**		TD***		PD****				
Length of time in present	f	%	f	%	f	%	f	%			
Less than one half	18	2	—	—	2	3	—	—			
1	48	5	3	8	7	10	3	6			
2	39	4	1	3	1	1	5	10			
3	47	5	3	8	1	1	1	2			
4	40	4	1	3	6	9	3	6			
5	52	5	2	5	3	4	2	4			
6	35	3	1	3	2	3	—	—			
7	24	2	1	3	2	3	—	—			
8	13	1	1	3	—	—	2	4			
9 or more	691	67	21	55	42	60	36	69			
No response	30	3	4	11	4	6	—	—			
Section 4						Section 9					
Marital Status	SSG†		AD**		TD***		PD****				
	f	%	f	%	f	%	f	%			
Single	770	74	32	84	57	82	37	71			
Engaged	72	7	4	11	5	7	8	15			
Married	172	17	2	5	8	11	7	13			
Separated	6	1	—	—	—	—	—	—			
Divorced	11	1	—	—	—	—	—	—			
Widower	2	0	—	—	—	—	—	—			
No response	4	0	—	—	—	—	—	—			
Section 5						Section 10					
Number of Children	SSG†		AD**		TD***		PD****				
	f	%	f	%	f	%	f	%			
0	690	67	30	79	44	63	36	69			
1	62	6	1	3	2	3	—	—			
2	27	3	—	—	—	—	1	2			
3	9	1	—	—	—	—	—	—			
4	2	0	—	—	—	—	—	—			
No response	247	24	7	18	24	34	15	29			
Section 6						Section 7					
Highest School Grade Completed	SSG†		AD**		TD***		PD****				
	f	%	f	%	f	%	f	%			
7th	2	0	—	—	—	—	—	—			
8th	21	2	2	5	1	1	1	2			
9th	31	3	—	—	8	11	6	11			
10th	90	8	5	13	14	19	6	11			
11th	95	9	10	26	13	19	4	8			
12th	618	60	15	40	26	37	31	60			
1 year college	108	10	4	11	6	9	2	4			
2nd year college	56	5	1	3	2	3	2	4			
3rd year college	8	1	—	—	—	—	—	—			
4th year college	4	0	—	—	—	—	—	—			
No response	4	0	1	3	—	—	—	—			
Section 8						Section 9					
Interrupted Education	SSG†		AD**		TD***		PD****				
	f	%	f	%	f	%	f	%			
Yes	106	10	5	13	11	16	5	10			
No	918	88	33	87	56	80	45	86			
No response	13	1	—	—	3	4	2	4			
Section 9						Section 10					
Reason for Leaving School	SSG†		AD**		TD***		PD****				
	f	%	f	%	f	%	f	%			
Graduated	478	46	11	29	19	27	22	42			
Service	241	23	10	26	21	30	5	10			
Work	116	11	6	16	14	20	11	21			
Drafted	12	1	—	—	1	1	—	—			
Independent of family	1	0	1	3	—	—	—	—			
Wanderlust	4	0	1	3	—	—	—	—			
Help financially	55	5	2	5	—	—	1	2			
Miscellaneous	66	6	3	8	9	13	3	6			
No response	64	6	4	11	6	9	10	19			
Section 10						Section 11					
Number of Subjects Liked Best	SSG†		AD**		TD***		PD****				
	f	%	f	%	f	%	f	%			
None	3	—	—	—	—	—	—	—			
1	209	20	11	29	15	22	14	27			
2	446	43	14	37	29	42	17	33			
3	252	24	7	18	22	32	17	33			
4	90	9	2	5	4	6	1	2			
5	23	2	2	5	—	—	2	4			
6	7	1	1	3	—	—	—	—			
No response	7	1	1	3	—	—	1	2			

† Submarine School Graduates
 ** Academically Disqualified
 *** Temperamentally Disqualified
 **** Physically Disqualified

Section 11

Pattern of Subjects Liked Best	SSG†	AD**	TD***	PD****
	f %	f %	f %	f %
Scientific	192 18	1 3	10 14	8 15
Language	45 4	2 5	3 4	—
Mechanical	97 9	3 8	3 4	4 8
Social science	13 1	3 8	2 3	1 2
Clerical	6 1	—	—	—
Miscellaneous	2 0	—	—	1 2
No evident pattern	675 65	27 71	52 74	37 71
No response	7 1	2 5	—	1 2

Section 12

Number of Subjects Failed	SSG†	AD**	TD***	PD****
	f %	f %	f %	f %
None	529 51	19 50	31 44	24 46
1	354 34	14 37	26 37	23 44
2	92 9	3 8	6 8	3 6
3	5 0	—	3 4	—
4	—	—	1 1	—
No response	57 5	2 5	3 4	2 4

Section 13

Pattern of Subjects Failed	SSG†	AD**	TD***	PD****
	f %	f %	f %	f %
Scientific	28 3	1 3	1 1	—
Language	100 10	3 8	9 13	4 8
Social Science	15 1	—	1 1	1 2
Clerical	1 0	—	—	—
No evident pattern	838 81	32 84	56 81	45 86
No response	55 5	2 5	3 4	2 4

Section 14

Longest Job Incumbency	SSG†	AD**	TD***	PD****
	f %	f %	f %	f %
No civilian job	161 16	4 11	13 19	8 15
6 months or less	136 13	9 24	15 22	7 13
6 months to 1 year	154 15	7 18	11 16	8 15
1 year to 2 years	217 21	7 18	14 20	12 23
2 years to 4 years	245 24	8 21	13 19	13 25
5 years or more	82 8	1 3	—	2 4
No response	42 4	2 5	4 6	2 4

Section 15

Pattern of Job Held	SSG†	AD**	TD***	PD****
	f %	f %	f %	f %
Professional and Managerial	37 4	—	1 1	3 6
Clerical and sales	122 12	4 11	10 14	6 11
Service	26 3	3 8	—	2 4
Agricultural	96 9	1 3	6 9	5 10
Skilled	93 9	3 8	1 1	2 4
Semi-skilled	72 7	—	6 9	3 6
Unskilled or ambiguous	384 37	21 55	29 42	19 37
None	159 15	4 11	13 19	8 15
No response	48 5	2 5	4 6	4 8

Section 16

Savings Account	SSG†	AD**	TD***	PD****
	f %	f %	f %	f %
Yes	720 69	25 66	40 57	31 60
No	309 30	13 34	28 40	21 40
No response	8 1	—	2 3	—

Section 17

Number of Sicknesses or Injuries	SSG†	AD**	TD***	PD****
	f %	f %	f %	f %
0	78 8	5 13	4 6	4 8
1	198 19	12 32	17 24	10 19
2	241 23	10 26	25 36	16 31
3	254 25	7 18	14 20	8 15
4	248 24	1 3	7 10	6 13
5	83 8	2 5	2 3	5 10
6	16 2	1 3	—	2 4
7	17 2	—	—	—
8	1 0	—	—	—
No response	6 1	—	1 1	1 2

Section 18

Types of Sickness or Injury	SSG†	AD**	TD***	PD****
	f %	f %	f %	f %
Childhood communicable	243 23	9 24	16 23	11 21
Operations	24 2	1 3	2 3	5 10
Accidents	82 8	5 13	8 11	3 6
Venereal disease	1 0	—	—	—
Respiratory disease	21 2	2 5	2 3	1 2
Skin disease	5 0	—	—	—
Miscellaneous	577 56	16 42	37 53	27 50
Stated "none"	78 8	5 13	4 6	4 8
No response	6 1	—	1 1	1 2

Section 19

Worst Illnesses	SSG†	AD**	TD***	PD****
	f %	f %	f %	f %
Childhood communicable	268 26	7 18	12 17	13 25
Operations	128 12	4 11	6 9	11 21
Accidents	210 20	8 21	23 33	10 19
Venereal disease	4 0	—	—	—
Respiratory disease	132 13	4 11	7 10	4 8
Skin disease	11 1	—	1 1	—
Miscellaneous	61 6	—	6 9	3 6
Stated "none"	77 7	6 16	5 7	4 8
No response	146 14	9 24	10 14	7 13

Section 20

Reason for Worst Illness	SSG†	AD**	TD***	PD****
	f %	f %	f %	f %
Duration, confinement	197 19	4 11	11 16	10 19
Severity, including pain	319 31	10 26	23 33	14 27
Fear permanent injury	41 4	—	3 4	4 8
Personal inconvenience	129 12	7 18	6 9	10 9
Operation required	29 3	—	4 6	1 2
Appearance affected	5 0	—	—	—
Delirium, mental aspects	2 0	—	1 1	—
Other, e.g., only one had, only one remembers, etc.	96 9	2 5	5 7	2 4
None	5 0	2 5	3 4	—
No response	214 21	13 34	14 20	11 21

Section 21

Greatest accomplishment	SSG†	AD**	TD***	PD****
	f %	f %	f %	f %
Education	326 31	6 16	18 26	11 21
Physical proficiency	71 7	7 18	9 13	3 6
Joining Navy	61 6	4 11	11 16	5 10
Submarine school	44 4	6 16	5 7	1 2
Sex role	70 7	3 8	4 6	1 2
Civilian job	142 14	2 5	6 8	9 17
Reputation with others	36 3	3 8	2 3	2 4
Service to others	16 2	2 5	1 1	1 2
Achievement in science	110 11	2 5	5 7	7 13
Miscellaneous	133 13	2 5	7 10	10 19
None	16 2	—	1 1	1 2
No response	12 1	1 3	1 1	1 2

† Submarine School Graduates
 ** Academically Disqualified
 *** Temperamentally Disqualified
 **** Physically Disqualified

Section 22

	SSG‡		AD**		TD***		PD****	
Greatest Failure*	f	%	f	%	f	%	f	%
Incomplete education	229	39	10	36	24	48	13	36
Low level of accomplishment in skills or school subjects	89	15	7	25	3	6	6	17
Vocational failures	57	10	—	—	4	8	3	8
Personal characteristics	52	9	5	18	5	10	2	6
Sex role	20	3	—	—	2	4	—	—
Money failures	19	3	2	7	2	4	1	3
Home relationships	13	2	—	—	1	2	2	6
Miscellaneous	62	10	2	7	6	12	6	17
None	21	4	—	—	—	—	1	3
No response	31	5	2	7	2	4	2	6

* The Ns for this tabulation vary from the respective group Ns, because some questionnaires did not include this question originally.

Section 23

Type of People by Whom Upset	SSG‡		AD**		TD***		PD****	
	f	%	f	%	f	%	f	%
Undesirable physical characteristics	10	1	—	—	1	1	1	2
Undesirable personality characteristics	574	55	20	53	27	39	31	60
Undesirable habits	136	13	8	21	14	20	5	10
Talkative	36	3	1	3	2	3	4	8
Loud	140	13	4	11	10	14	6	11
Racial and religious	2	0	—	—	—	—	—	—
Miscellaneous	35	3	1	3	6	9	1	2
None	86	8	2	5	10	14	1	2
No response	18	2	2	5	—	—	3	6

Section 24

Personal Habit Desirous of Improving	SSG‡		AD**		TD***		PD****	
	f	%	f	%	f	%	f	%
Speech and language	134	13	6	16	8	11	5	10
Cursing	91	9	—	—	4	6	5	10
Neatness	118	11	3	8	4	6	7	13
Smoking	105	10	6	16	6	9	7	13
Drinking	15	1	—	—	4	6	—	—
Relations with others	193	19	7	18	19	27	8	15
Personal adjustment	120	12	1	3	8	11	5	10
Acquisition of knowledge and skill	123	12	5	13	7	10	9	17
Nailbiting	10	1	—	—	6	9	1	2
Miscellaneous	83	8	5	13	2	3	2	4
None	18	2	—	—	1	1	—	—
No response	27	3	5	13	1	1	3	6

Section 25

Cause of crying	SSG‡		AD**		TD***		PD****	
	f	%	f	%	f	%	f	%
Death of loved one	467	45	12	32	36	52	22	42
Sadness-sorrow	110	11	8	21	6	9	8	15
Personal emotional outbursts	76	7	5	13	5	7	3	6
Pleasant emotions	35	3	2	5	4	6	4	8
Personally hurting others	15	1	—	—	—	—	—	—
Empathetic and sympathetic reactions	66	6	1	3	1	1	5	10
Miscellaneous	106	10	3	8	11	16	4	8
Don't know	19	2	—	—	1	1	—	—
Nothing	116	11	6	16	6	9	3	6
No response	27	3	1	3	—	—	3	6

‡ Submarine School Graduates

** Academically Disqualified

*** Temperamentally Disqualified

**** Physically Disqualified

Section 26

Most Admired Person	SSG‡		AD**		TD***		PD****	
	f	%	f	%	f	%	f	%
Anyone with a good quality	138	13	7	18	9	13	5	10
Father	217	21	8	21	15	21	14	27
Father figure	115	11	2	5	8	11	4	8
Mother	183	18	3	8	10	14	5	10
Mother figure	12	1	—	—	—	—	1	2
Wife (sweetheart)	89	9	4	11	6	9	5	10
Hero figure	73	7	3	8	7	10	5	10
Family, parents	158	15	9	24	12	17	9	17
Miscellaneous	13	1	—	—	1	1	—	—
No one	4	0	—	—	1	1	—	—
No response	35	4	2	5	1	1	4	8

Section 27

Type of sport preferred	SSG‡		AD**		TD***		PD****	
	f	%	f	%	f	%	f	%
Team play physical contact	334	32	14	37	25	36	25	48
Team play, no physical contact	324	31	9	24	21	30	11	21
Individual, competitive	146	14	9	24	11	16	6	13
Individual, non-competitive	216	21	5	13	12	17	8	15
Other	8	1	1	3	1	1	1	2
None	4	0	—	—	—	—	—	—
No response	5	0	—	—	—	—	1	2

Section 28

Degree of Sport Proficiency	SSG‡		AD**		TD***		PD****	
	f	%	f	%	f	%	f	%
Poor	57	5	2	5	5	7	2	4
Average	551	53	19	50	46	66	29	56
Good	384	37	16	42	18	26	19	37
No indication	19	2	—	—	—	—	—	—
No response	26	3	1	3	1	1	2	4

Section 29

Desired Future In Five Years	SSG‡		AD**		TD***		PD****	
	f	%	f	%	f	%	f	%
Navy	437	42	16	42	29	42	23	44
Own business	79	8	3	8	5	7	5	10
Job-unskilled	17	2	2	5	1	1	1	2
Job-semi-skilled	8	1	—	—	—	—	—	—
Job-skilled	51	5	2	5	4	6	4	8
Job-white collar, professional	44	4	4	11	4	6	4	8
Civilian schooling	99	10	3	8	4	6	4	8
Farming	13	1	—	—	3	4	1	2
Others	255	25	7	18	17	24	10	19
"Don't know"	23	2	1	3	2	3	—	—
No response	11	1	—	—	1	1	—	—

Section 30

Three Most Cherished Possessions*	SSG‡		AD**		TD***		PD****	
	f	%	f	%	f	%	f	%
Father	50	2	5	4	7	3	6	4
Mother	95	3	—	—	9	4	10	6
Other member of immediate family	54	2	11	10	4	2	4	3
Family (wife, children)	869	28	35	31	47	22	39	25
Concepts (love, home background)	728	23	20	18	57	27	30	19
Career in Navy	5	—	2	2	—	—	—	—
Health	293	9	16	14	20	10	16	10
Material things	716	23	15	13	50	24	36	23
Education	63	2	—	—	2	1	3	2
Achievement (job)	35	1	2	2	—	—	2	1
None	10	1	3	3	—	—	—	—
No response	193	6	5	4	14	7	10	6

* Since each individual's 3 choices were tabulated, totals are 3 times the group N.

APPENDIX C

Table 2.- Sum of Percentage Differences Between Successful and Unsuccessful Groups on Their Distributions of Responses to Each Item on the Confidential Questionnaire

Item	SSG v AD	SSG vs TD	SSG v PE
Pay grade	33	16	24
Age	36	18	20
Number of places lived in past ten years	28	22	19
Length of time in present home town	33	31	28
Marital status	28	16	17
Number of children	25	21	15
Highest school grade completed	55	11	20
Interrupted education	5	17	5
Age at time of leaving school	20	32	39
Reason for leaving school	39	50	44
Number of subjects liked best	32	13	37
Patterns of subjects liked best	33	22	19
Number of subjects failed	5	17	19
Patterns of subjects failed	14	17	23
Longest job incumbency	31	29	8
Pattern of jobs held	46	23	14
Savings account	8	24	20
Number of sicknesses or injuries	47	38	26
Type of sickness or injury	31	9	22
Worst illness	38	31	19
Reason for worst illness	48	19	17
Greatest accomplishment	81	42	37
Greatest failure	51	30	26
Type of people by whom upset	19	37	27
Personal habits desirous of improving	51	43	31
Cause of crying	44	27	30
Person most admired	38	12	34
Type of sport preferred	32	11	24
Degree of sports proficiency	10	30	7
Desired future in five years	23	15	24
Three most cherished possessions	46	24	16

APPENDIX D

A REVISION OF THE CONFIDENTIAL QUESTIONNAIRE

CONFIDENTIAL QUESTIONNAIRE

The response that you give on this questionnaire will be held confidential. It is important that you fill out this form completely. Be sure to answer all the questions. If the item does not apply to you, write "None" or whatever is appropriate.

PART I

Personal History

Name _____ Date _____

Rate _____ Service No. _____ USN _____ or USNR _____

Place of birth _____

City State

Marital Status: Single _____ Engaged _____ Married _____

Separated _____ Divorced _____ Widowed _____

Children: None _____ Number of sons _____ Number of daughters _____

Present Home Town: _____
City State Hrs. lived there

How many places have you lived during the ten years prior to your entry into the service? _____

Educational History

Encircle highest grade completed in school:

Grade school 5 6 7 8 High School 1 2 3 4 College 1 2 3 4

Were you ever out of school for more than six months? Yes _____ No _____

How old were you when you left school? _____

Why did you leave school?

Graduation _____ Financial reasons _____ Enter service _____

Go to work _____ Didn't like school _____ To be independent _____

Other (please state reason) _____

Indicate which subjects you liked or disliked by placing an "L" alongside those you liked; a "D" alongside those you disliked.

Sciences _____ English _____ Mechanical or Shop _____

Mathematics _____ Languages _____ Social Science _____
(history, economics, etc.)

Work History

List below the jobs you have held during the past ten years, excluding naval service. Do not list the name of the organization by which you were employed, but state what position you held. Place a check mark next to the number of the job you liked best.

___ 1. _____ From _____ To _____

___ 2. _____ From _____ month _____ year To _____ month _____ year

___ 3. _____ From _____ To _____

___ 4. _____ From _____ To _____

What is the longest period of time that you have been unemployed since leaving school? _____

Years Months

Medical History

Check below any illness or other physical disabilities that you have had.

Mumps _____ Measles _____ Chicken Pox _____ Hernia _____

Scarlet Fever _____ Pneumonia _____ Venereal Disease _____ Skin Disease _____

Other (specify) _____

Operations _____

Accidents _____

Encircle the check next to the one that was the worst.

Why was it the worst? _____

PART II

What do you consider your greatest accomplishment up to the present time? _____

What do you consider your greatest failure? _____

What kind of people upset you? _____

What kind of people do you like to be with? _____

Which of your personal characteristics would you like to improve? _____

Which of your personal characteristics are you most proud of? _____

What makes you cry? _____

What person do you most admire? _____

What is your favorite sport? _____

What means more to you than anything else? _____

What do you want to be doing five years from now? _____

Why are you interested in serving on a submarine? _____